NATURAL RESOURCES COMMISSION

Information Bulletin #58

Subject: Oil and Gas Drilling Unit and Well Spacing Requirements for Horizontal Wells

I. Introduction

In accordance with <u>IC 14-37-3-3</u> the commission is authorized to develop rules regulating the spacing of wells for oil and gas purposes. Existing rules for this purpose are found at <u>312 IAC 16-5-1</u> through <u>312 IAC 16-5-3</u>. These rules were developed before widespread use of horizontal well drilling technologies began to be employed in Indiana. Applying the existing vertical well spacing rules to horizontal wells has become increasingly difficult for the division of oil and gas to ensure that consistent methods are used to determine the location of wells within a drilling unit and to assign acreage to a horizontal well for production sharing purposes. Establishing consistent and predictable standards for horizontal drilling units is beneficial not only for the oil and gas operator but also for the landowners who are entitled to share in the production resulting from the well.

II. Purpose

The purpose of this nonrule policy document is to establish specific guidelines for drilling unit and well spacing applicable to horizontal wells. It is intended that this policy be used as guidance by the division of oil and gas and by operators wishing to permit horizontal wells until such time that formal rules are adopted. It is anticipated that final rules will closely resemble those guidelines established by this nonrule policy.

III. Definitions

Terms used in this policy document have the following meaning:

- A. "Drilling unit" means the acreage allotted to a production well taking into consideration the maximum acreage that can be efficiently and economically drained by a single well from a specified formation. Owners of oil and gas interests in the allotted acreage are entitled to share in the production from the well.
- B. "Horizontal drainhole" means that portion of a wellbore with 70 to 110 degrees deviation from the vertical drilled at least 100 feet into the producing interval beginning at the point where the wellbore penetrates the producing interval and ending at the farthest point drilled within the producing interval.
- C. "Horizontal well" means any well that is developed with one or more horizontal drainholes.
- D. "Unitize" or "unitization" means the combining of multiple wells or drilling units to produce from a specified pool or reservoir or a specified geographic area:
 - (1) by a single operator in order to maximize efficiency or improve the economics of production from a common pool or reservoir; or
 - (2) through joint operations to promote efficiency and maximize recovery among separate operators within a common pool or reservoir.
- E. "Unitized area" or "unit" means the area established by unitization from which the proceeds of production are distributed to the participants according to:
 - (1) an agreed upon formula, in the case of voluntary unitization; or
 - (2) a formula established by the department in a proceeding under IC 14-37-9.

The part of the production allocated to the owner of each tract within the unit shall be considered as if produced from a well drilled on that tract.

IV. Drilling Units and Well Spacing for Horizontal Wells

- A. An oil or gas production well may be developed with one or more horizontal drainholes drilled from a single vertical wellbore and may be considered a single well and permitted in accordance with the provisions of 312 IAC 16-3.
- B. A horizontal well shall meet the applicable drilling unit requirements under <u>312 IAC 16-5-1</u> and <u>312 IAC 16-5-2</u> unless otherwise specified in this policy.
- C. A horizontal well shall meet the applicable spacing requirements under <u>312 IAC 16-5-1</u> at every point along the horizontal drainhole portion of the well. The spacing requirements applicable to a horizontal well shall be the same as would apply to a vertical well of the same projected depth.
- D. Expanded drilling units for horizontal wells extending beyond the boundaries of a single drilling unit area established under 312 IAC 16-5-1 through 312 IAC 16-5-2 shall consist of all contiguous drilling unit areas through which any portion of a horizontal drainhole will be drilled from a single well. For purposes of this policy, a drilling unit area is that five, 10, 20, or 40 acre area applicable to a single vertical well as established under 312 IAC 16-5-1 and 312 IAC 16-5-2.
- E. The surface location for a horizontal well may be located outside the boundary of the drilling unit assigned to a horizontal well provided the surface location is on property owned or leased by the well operator.

V. Additional Exceptions to Well Spacing and Drilling Unit Requirements

The following clarifications and additional exceptions are established in addition to those contained in 312

IAC 16-5-3:

- A. As provided in 312 IAC 16-5-3, geological or structure test wells are exempt from the well spacing and drilling unit requirements of 312 IAC 16-5-1 and 312 IAC 16-5-2 provided that no production of oil or natural gas shall occur before the well is converted to a producing well for oil and gas purposes. Before a geological or structure test well is converted to a producing well for oil and gas purposes, that well must comply with the spacing and drilling unit requirements of 312 IAC 16-5-1 and 312 IAC 16-5-2.
- B. Oil production wells that are:
 - (1) a part of a secondary or enhanced oil recovery project; or
 - (2) located within a voluntary unit area;
- are exempt from the spacing requirements of <u>312 IAC 16-5-1</u> provided that such wells may not be located closer than the applicable spacing limit established in <u>312 IAC 16-5-1</u> from the unit boundary line unless a written waiver is obtained from the adjacent lease owner or operator.
- C. Coal bed methane wells drilled into a mine void or into a pillar within the mined out area of an abandoned underground coal mine are exempt from the spacing requirements of 312 IAC 16-5-1 provided that such wells may not be located closer than the applicable spacing limit established in 312 IAC 16-5-1 from the nearest lease boundary line or unit boundary line unless a written waiver is obtained from the adjacent lease owner or operator.
- D. For horizontal wells where a horizontal drainhole will be drilled diagonally across multiple drilling unit areas, the division director may approve the addition of any drilling unit area contiguous to the expanded drilling unit established under section IV of this policy without conducting an informal hearing under 312 IAC 16-2-3 if:
 - (1) any portion of said contiguous drilling unit area lies closer than the applicable spacing limit established in <u>312 IAC 16-5-1</u> (that is, 165 or 330 feet) measured from any point along the horizontal drainhole; and (2) the operator owns the oil and gas rights to said contiguous drilling unit area.

VI. Forced Pooling and Voluntary Production Units

Nothing in this policy shall prevent an operator from:

- A. filing a petition for integration and forced pooling under IC 14-37-9; or
- B. establishing voluntary production units by the unitization of parcels upon which multiple wells may be drilled, and where a formula for the sharing of production from within the unit has been ratified by all oil and gas owners within the unitized area.

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